

## WWC EVIDENCE REVIEW PROTOCOL FOR DROPOUT PREVENTION INTERVENTIONS

A systematic review of evidence in this topic area will address the following questions:

- Which dropout prevention programs are effective in keeping students in school and helping them progress in school?
- Are some dropout prevention programs more effective for some types of students such as minority students or special-education students?

### Topic Area Focus

Dropping out of school continues to be an issue of national concern because of its links with poor labor market prospects, higher rates of public assistance receipt, and higher rates of substance use and incarceration. Recent estimates indicate that 10.5 percent of youth age 16 to 24 are not attending and have not completed high school, and the rate is 11.3 percent and 25.7 percent for black and Hispanic youth, respectively.<sup>1</sup> The rate has been remarkably constant in the last two decades, even as other indicators of risky teen behavior such as pregnancy have declined.

The What Works Clearinghouse (WWC) review will examine secondary school (middle school, junior high school, and high school) as well as community-based interventions designed to help students stay in school and/or complete school.

### Key Definitions

***Dropout Prevention Programs.*** Dropout prevention programs are interventions designed to keep students in school and ultimately improve their likelihood of completing high school. These interventions can include services and activities such as incentives, counseling, monitoring, school restructuring, curriculum design, literacy support, or community-based services to mitigate factors impeding progress in school. They can operate in a public or private school setting, postsecondary institutions, or in a community facility such as a youth center or community-based organization.

The interventions can be targeted at middle school students, junior high students, or high school students. For middle school students, program goals may be to keep students in middle school or complete middle school. For high school students, program goals might be to keep students in high school or complete high school either by receiving a diploma or certificate of general educational development (GED).

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<sup>1</sup>National Center for Education Statistics (2005). “The Condition of Education 2005: Indicator 19 – Status Dropout Rates by Race/Ethnicity.” NCES 2005-094. Washington, DC: U.S. Government Printing Office.

***The key outcomes are staying in or completing school.*** The success of a dropout prevention intervention will be examined by comparing program participants (a intervention group) and a control or comparison group, to assess whether program participants (the intervention group) was more likely to stay in or complete school. Some interventions may focus on middle school or high school completion. This is distinct from continuing to attend school, which also will be considered in the review. Other outcomes such as high school course credit accumulation are directly related to attending school and also may be examined in the review.

## **General Inclusion Criteria and Populations To Be Included**

The general target population includes students who attend middle school, junior high school, or high school, or who are at the age when they could be attending these schools but are not (that is, they have dropped out of school). Subpopulations that are especially at risk are of particular interest. The research literature has identified risk factors including being a racial or ethnic minority, being a second-language learner, growing up in a poverty household, having low grades or poor attendance, and receiving special education services.

## **Types of Interventions That May be Included**

The interventions to be included will be determined after a search of the published and unpublished literature as well as a review of the nominations submitted to the WWC. To be included in the review, the intervention must focus on promoting attendance in or completion of school. Interventions whose purpose is to affect behaviors that are correlated with staying in school or completing school, such as violent behavior or drug use and teen pregnancy reduction, will not be included in the review. The intervention must operate in U.S. schools, territories, or tribal regions.

The review will focus on “nonbranded” interventions. Dropout prevention programs are typically not “branded” in the sense of being trademarked or copyrighted and having a channel for dissemination or an organization promoting dissemination.

Examples of the types of interventions to be included are:

Programs:	<ul style="list-style-type: none"> <li>Alternative middle schools and high schools</li> <li>Schools within schools (including freshman and career academies)</li> <li>After-school and enrichment</li> <li>Peer tutoring and mentoring</li> <li>College preparation</li> <li>Community service and service learning</li> <li>GED preparation</li> </ul>
Practices or Strategies:	<ul style="list-style-type: none"> <li>Counseling and case-management</li> <li>School restructuring</li> </ul>
Policies	<ul style="list-style-type: none"> <li>Driver license suspension</li> <li>Welfare payment reductions</li> </ul>

Financial incentives

## Inclusion and Exclusion Criteria for Studies Collected for Review

The Dropout Prevention literature search focuses on studies involving programs, practices, and policies for students in middle school, junior high school, or high school. To be included in the review, a study must meet several relevancy criteria:

- *Topic relevance.* The study has to be about keeping students in school an/or helping students complete school. The study is required to focus on the effects of the intervention, and should not be a correlational study examining relationships between school attendance or dropout behavior and other characteristics.
- *Timeframe relevance.* The study has to be published 1983 or later. Because of the difficulty in reaching authors of conference papers, the timeframe for those searches will be limited to conferences taking place between 1995 and 2005 (Note: WWC only goes back 5 years on conference proceedings).
- *Sample relevance.* The sample must include students in middle school, junior high, or high school, or when they are at the age they could be attending these schools, but are not (that is, they have dropped out of school).
- *Study design relevance.* The study design and focus is limited to manuscripts that are empirical studies, using quantitative methods and inferential statistical analyses, and that take the form of a randomized control trial, a regression-discontinuity design, a quasi-experimental design, or a single-subjects design.
- *Outcome relevance.* The study was required to focus on student-reported outcomes related to keeping students in school and/or school completion.

## II. SPECIFIC TOPIC PARAMETERS

### 1. **Commonly-shared or theoretically derived characteristics of the intervention that should be reflected in its definition and implementation.**

- The primary emphasis is on staying in or completing school. Suitable interventions for the review will have as their primary purpose an increase in staying in school or completion rates, or a reduction of dropout rates.
- The intervention is implemented in a middle, junior, or high school, a community-based organization, or a community facility, or within an identified governmental jurisdiction such as a school district, county, or state.

### 2. **Important characteristics of the intervention that must be known in order to reliably replicate it with different participants, in other settings, at other times.**

- Services provided and activities that are part of the intervention;
- Duration of the intervention;
- Characteristics of staff administering the intervention

In addition to these criteria, the study must describe:

- The target population;
- The institutional setting in which the intervention is implemented

These two additional criteria reflect the fact that dropout prevention programs can target a range of students and be implemented in a range of institutional settings, and some information about the types of students and institutions is needed to replicate the program appropriately.

### 3. **Important classes of outcomes.**

The primary outcome to be studied is staying in school (retention), which can be measured as the number or rate of students who stay in school or complete school. Some studies may examine middle school completion or high school completion, which is an alternative for assessing whether dropping out is reduced.

For this review, grades, standardized test scores, and mitigation of other risk factors are secondary to staying in or completing school, and will not be considered.

#### 3a. **What classes of outcomes are needed to conclude that a “reasonable range” of operations and/or methods have been included and tested?**

- Staying in school
- Reentering school

- Completing school (Advancement from middle school to high school, high school diploma, or GED)
  - High school course credit accumulation
- 4. Evidence sufficient for an outcome measure to demonstrate each type of reliability (internal consistency, temporal stability/test-retest, and inter-rater).**

Standard WWC values will be applied to these reliability considerations as follows:

Internal consistency: .60

Temporal stability/test-retest: .40

Inter-rater reliability: .50

- 5. Interval of time within which studies should have been conducted to be appropriate for the evidence report.**

Studies must have been conducted in the period from 1983 to 2004. Timing will be judged by the date of earliest publication of any report on the study outcomes. The publication date for unpublished studies will be the date the document reached its final form.

- 6. Characteristics defining the target population.**

- Students are ages 14 to 21
- Students reside in the U.S.
- Students are “at risk” for dropout based on characteristics such as class performance (e.g., grades), attendance, grade level retention, contact with law enforcement or the legal system, or contact with social services, Hispanic or African-American students, students from single-parent households, students classified for special education services.

- 7. Important characteristics of participants that might be related to the intervention’s effect that must be equated if a study does not employ random assignment.**

Studies that do not employ random assignment must demonstrate the initial equivalence of the comparison groups, or ensure it through statistical control, with regard to some of the following criteria:

- Age, race/ethnicity, and socioeconomic status
- Prior achievement
- Attendance levels
- Dropout status
- Special education classification

- 8. Relevant subgroups of interest for this review are:**

- Sex
- Age at program entry
- Ethnicity/Race
- Overage or previously retained in grade
- Low attender or truant
- Low SES family background
- Low prior academic achievement
- Special education

**9. Relevant settings of interest for this review.**

- Urbanicity and Region
- Community SES

**10. Appropriate interval for measuring the intervention's effect relative to the end of the intervention.**

For the purposes of the review, the minimum length of the follow-up period will be six months after program entry. For example, a program that examines whether students have stayed in school using data collected less than six months after entry (a follow-up period of less than six months from baseline) will be dropped from consideration. The length of the intervention itself is not a factor.

**11. Amount of differential attrition from the intervention and control groups assumed to be problematic.**

The WWC default value will be used: differential attrition is defined as a differential loss of greater than 7%. If differential attrition is less than or equal to 7%, the associated bias will be assumed minimal. If differential attrition is greater than 7%, the study must show that it did not bias the effect size estimate by demonstrating post-attrition group equivalence on the pretest for at least one major outcome variable. This may be accomplished by showing nonsignificant differences with an adequately powered (.80) statistical significance test or a standardized mean difference between groups of  $d = .10$  or less.

**12. Amount of overall attrition from the study sample assumed to be severe.**

The WWC default value will be used: Severe overall attrition is defined as a loss of more than 20% of the sample assigned to the relevant study conditions. If overall attrition is less than or equal to 20%, the associated bias is assumed to be minimal. If overall attrition is greater than 20%, the study must show that it did not bias the effect size estimate by demonstrating post-

attrition group equivalence on the pretest for at least one major outcome variable. This may be accomplished by showing nonsignificant differences with an adequately powered (.80) statistical significance test or a standardized mean difference between groups of  $d = .10$  or less.



### III. METHODOLOGY

#### A. LITERATURE SEARCH STRATEGIES

##### Key Words

Following are key words that will be used for dropout prevention literature searches:

Academic persistence  
 Continuation students  
 Dropout attitudes  
 Dropout characteristics  
 Dropout prevention  
 Dropout intervention  
 Dropout programs  
 Dropout rate  
 Dropout research  
 Dropouts  
 Evaluation  
 General educational development  
 High school  
 High school dropouts  
 High school equivalency programs  
 Junior high school  
 Middle school  
 Resilience  
 Persistence  
 Potential dropouts  
 Retention  
 School completion  
 School holding power  
 Student attrition  
 Withdrawal

**Table 1: Journals to be hand searched**

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1. *High School Journal*
2. *Journal of School Psychology*
3. *Review of Education Research (quarterly)*
4. *Psychology in the Schools*
5. *School Psychology Review*
6. *School Psychology Quarterly*
7. *Education and Urban Society*
8. *Journal of Negro Education*

**Table 2: Journals to be electronically searched**

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1. *Economics of Education Review*
  2. *American Economic Review*
  3. *Journal of Political Economy*
  4. *Review of Economics and Statistics*

If at least 5 studies are identified via the electronic search in a particular journal, that journal will be searched in its entirety by hand. (Note: This is not part of WWC literature search process. We do not have the resources for conducting handsearch for this review cycle. I recommend deleting this sentence.)

**Table 3: Core List of Organizations**

1. *American Institutes for Research*
2. *Consortium for Policy Research in Education*
3. *RAND*
4. *Mathematica Policy Research*
5. *Urban Institute*
6. *National Dropout Prevention Center at Clemson*
7. *ED-funded National Research and Development Centers*
8. *ED-funded Regional Labs*
9. *SRI International*
10. *Society for Prevention Research*
11. *MDRC*
12. *National Science Foundation*
13. *American Federation of Teachers*
14. *National Education Association*
15. *MPR Associates, Inc.*
16. *Education Commission of the States*
17. *Abt Associates*
18. *National Institute of Child Health and Development*

## **B. PERSONAL CONTACTS**

We will solicit studies directly from experts in the field of education who work on dropout prevention interventions. The PI, deputy PI, and PC will identify these experts. We will also contact experts using listserv dedicated to this topic and whose members are scholars working in this area.

## **REFERENCES**

National Center for Education Statistics (2005). "The Condition of Education 2005: Indicator 19 Status Dropout Rates by Race/Ethnicity." NCES 2005-094. Washington, DC: U.S. Government Printing Office.